

FIG. 2

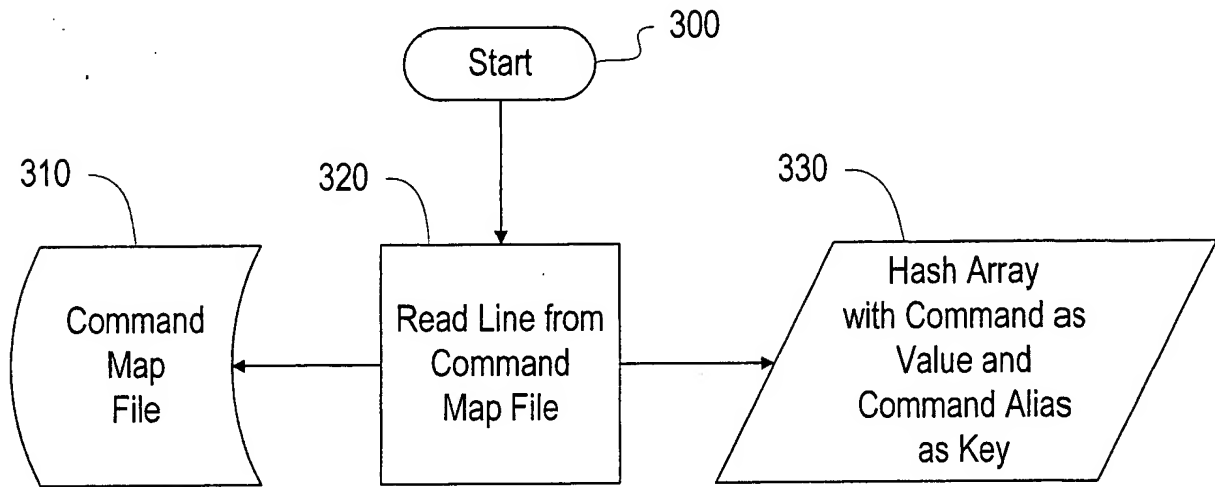


FIG. 3

Key	CmdArray[key]
a	autoGenMenu.exe
e	excel.exe
p	powerpnt.exe
w	winword.exe

FIG. 4

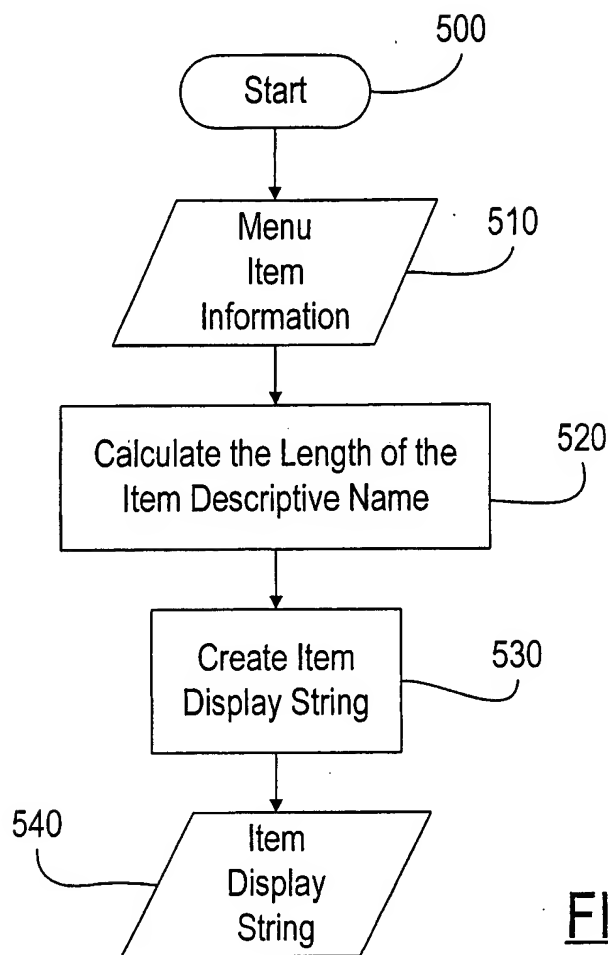


FIG. 5

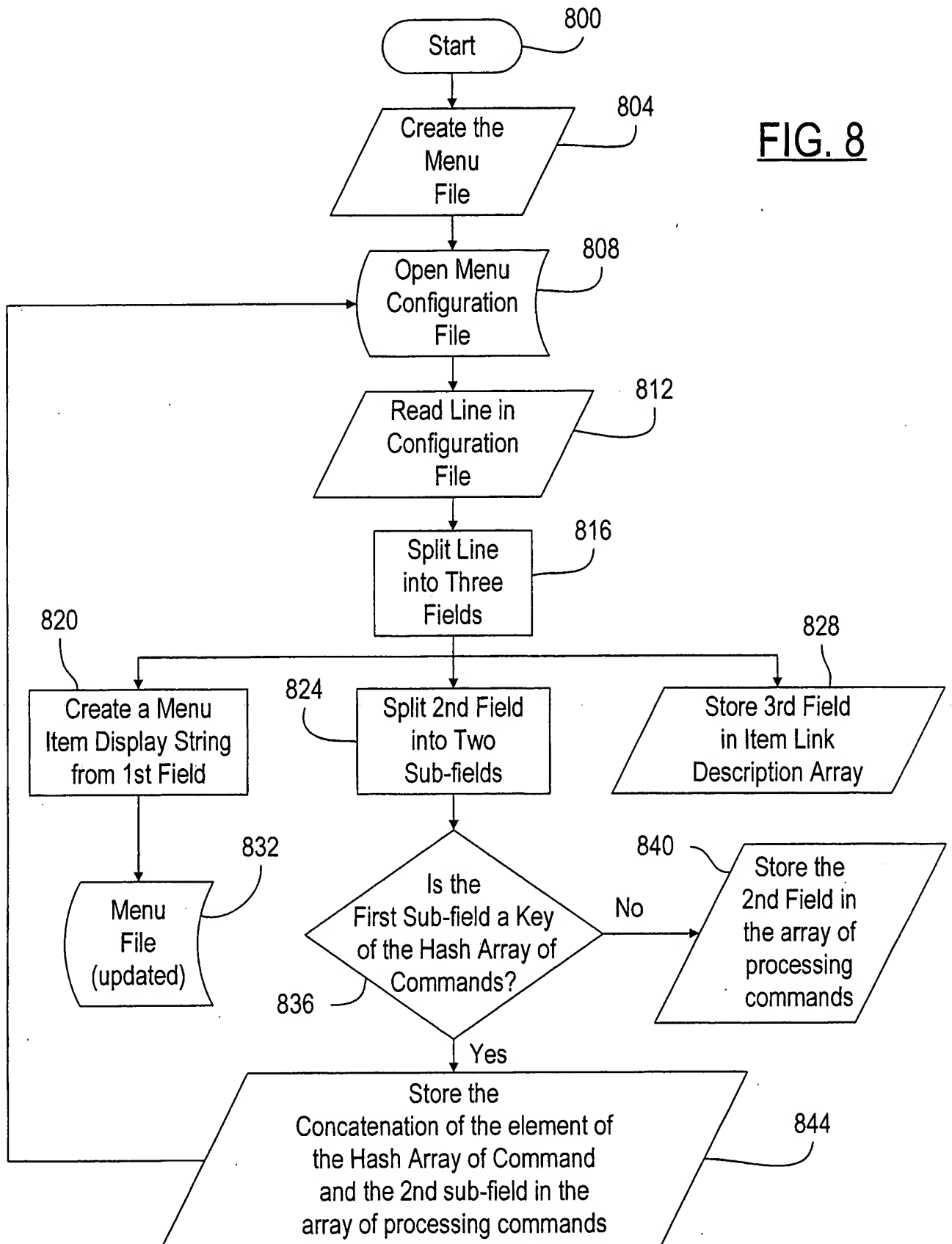
Utility;e utility.xls;Utility
 Insurance;e insurance.xls;Insurance
 Credit Card;e creditcard.xls;Credit Card
 Bank Account;e bank.xls;Bank Account
 Phone;e phone.xls;Phone
 Taxes;e taxes.xls;Taxes
 Trip;a menu1;Trip
 Concerts;a concert.txt;Concerts
 Presentation;p Presentation1.ppt;Presentation
 Others;e others.xls;Others
 Summary;e summary.xls;Summary

FIG. 6

Descriptive Names	Displaying fields (of length 24) inside double quotes
Utility	"0) Utility"
Insurance	"1) Insurance"
Credit Card	"2) Credit Card"
Bank Account	"3) Bank Account"
Phone	"4) Phone"
Taxes	"5) Taxes"
Trip	"6) Trip"
Concerts	"7) Concerts"
Presentation	"8) Presentation"
Others	"9) Others"
Summary	"10) Summary"

FIG. 7

FIG. 8



Index	Element of Processing Command Array with this index value
1	excel.exe utility.xls
2	excel.exe insurance.xls
3	excel.exe creditcard.xls
4	excel.exe bank.xls
5	excel.exe phone.xls
6	excel.exe taxes.xls
7	autoGenMenu.exe menu1
8	autoGenMenu.exe concert.txt
9	excel.exe others.xls
10	excel.exe summary.xls

FIG. 9

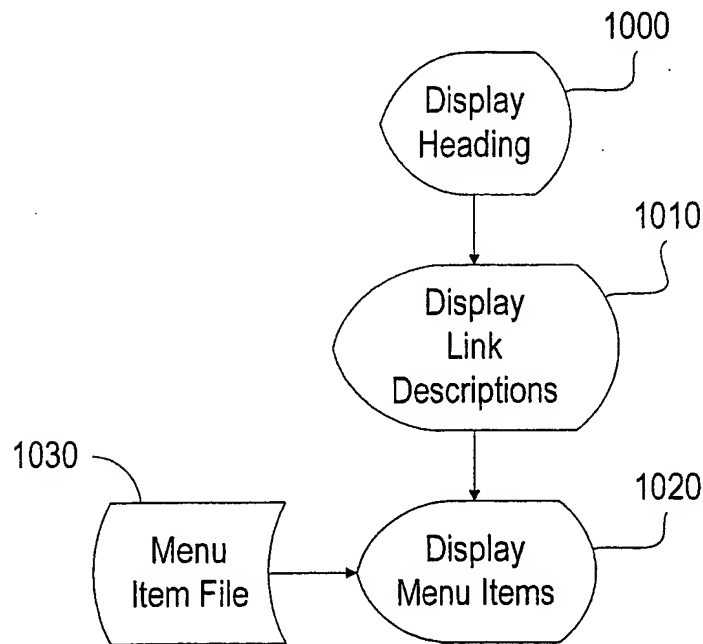


FIG. 10

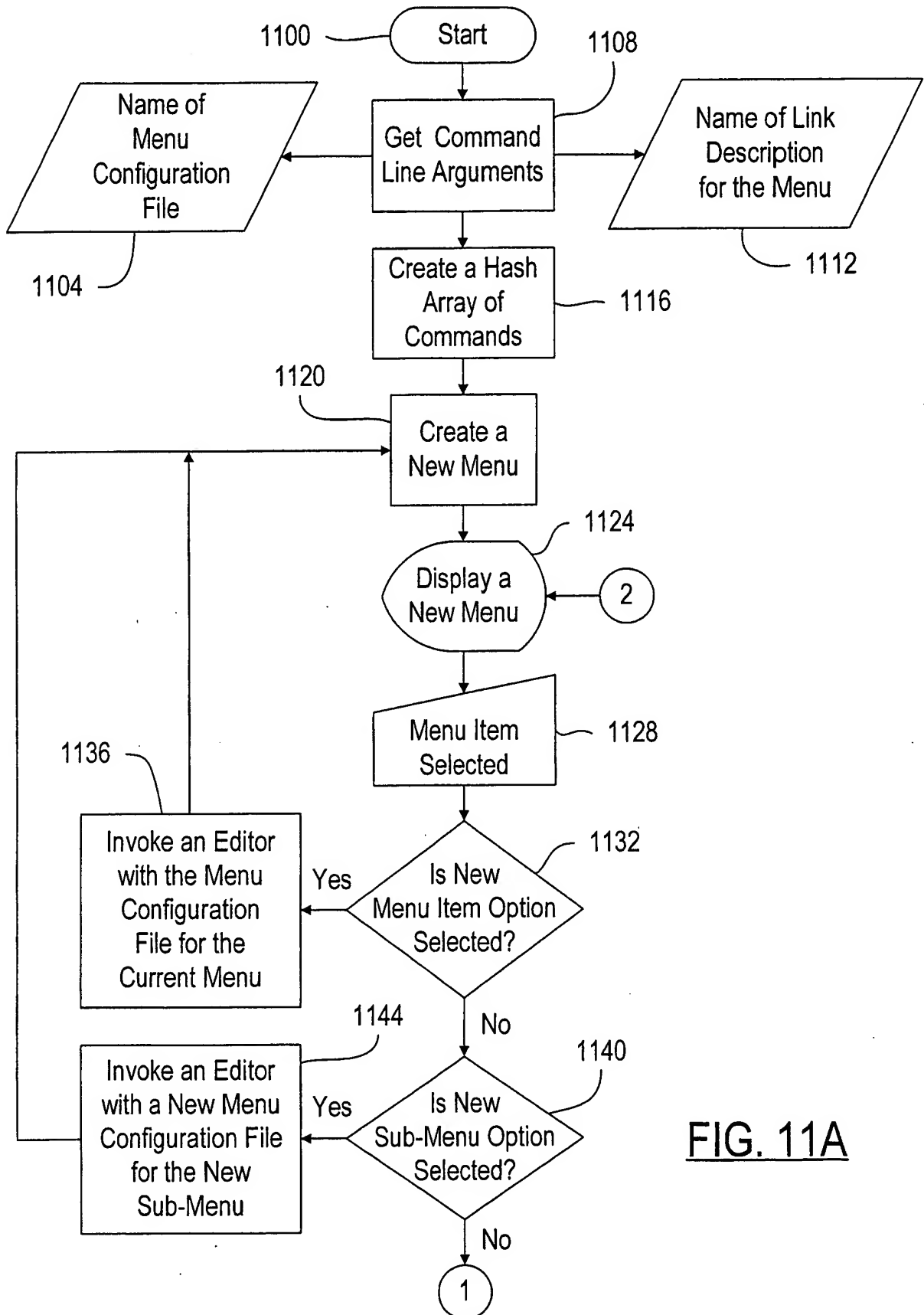


FIG. 11A

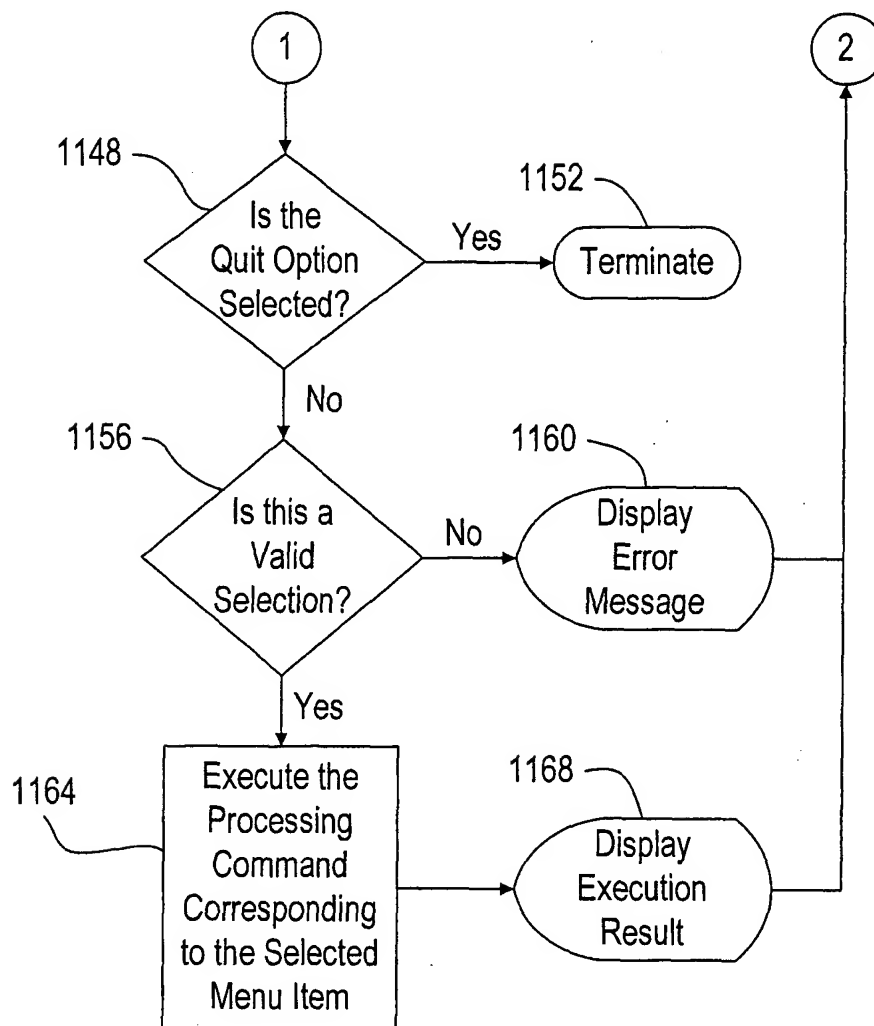


FIG. 11B

Automatically Generated Menu

Links: main

0) Utility	1) Insurance	2) Credit Card
3) Bank Account	4) Phone	5) Taxes
6) Trip	7) Concerts	8) Presentation
9) Others	10) Summary	
nmi) new menu item	nms) new submenu	q) quit

Choice:

FIG. 12

The screenshot shows a Microsoft Excel window with the title bar 'Microsoft Excel'. The menu bar includes 'File', 'Edit', 'View', 'Insert', 'Format', 'Tools', 'Data', 'Window', and 'Help'. The toolbar contains various icons for file operations, editing, and formatting. The active worksheet is named 'utility'. The spreadsheet data is as follows:

	A	B	C	D	E	F
1		Aug		Sep		
2	Water	12.23	21-Aug			
3						
4	Consumer Energy	25	29-Jul			
5						
6	DTE Energy	21.36	5-Aug			
7						
8	Comcast	32.63	1-Aug			
9						

The status bar at the bottom shows 'Ready'.

FIG. 13

Automatically Generated Menu

FIG. 14A

Links: main

0) Trip 1

nmi) new menu item

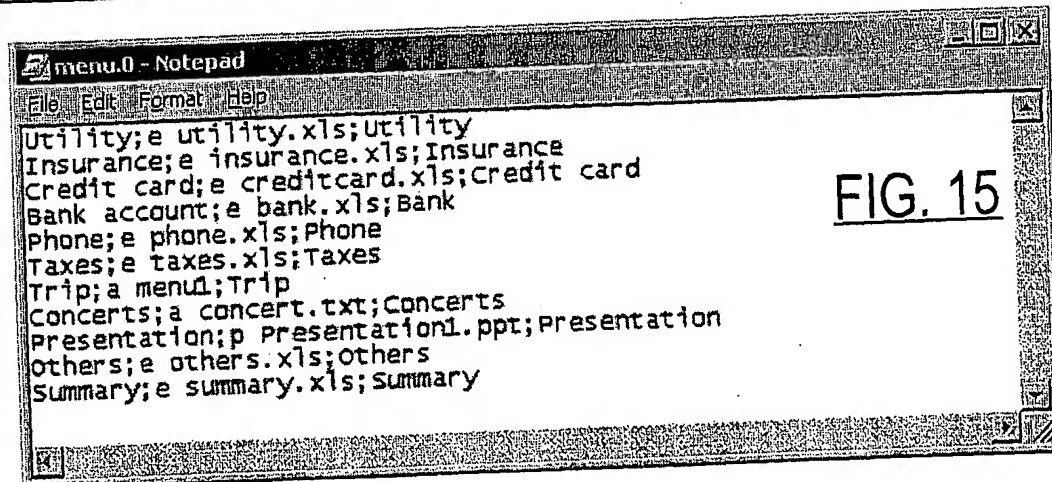
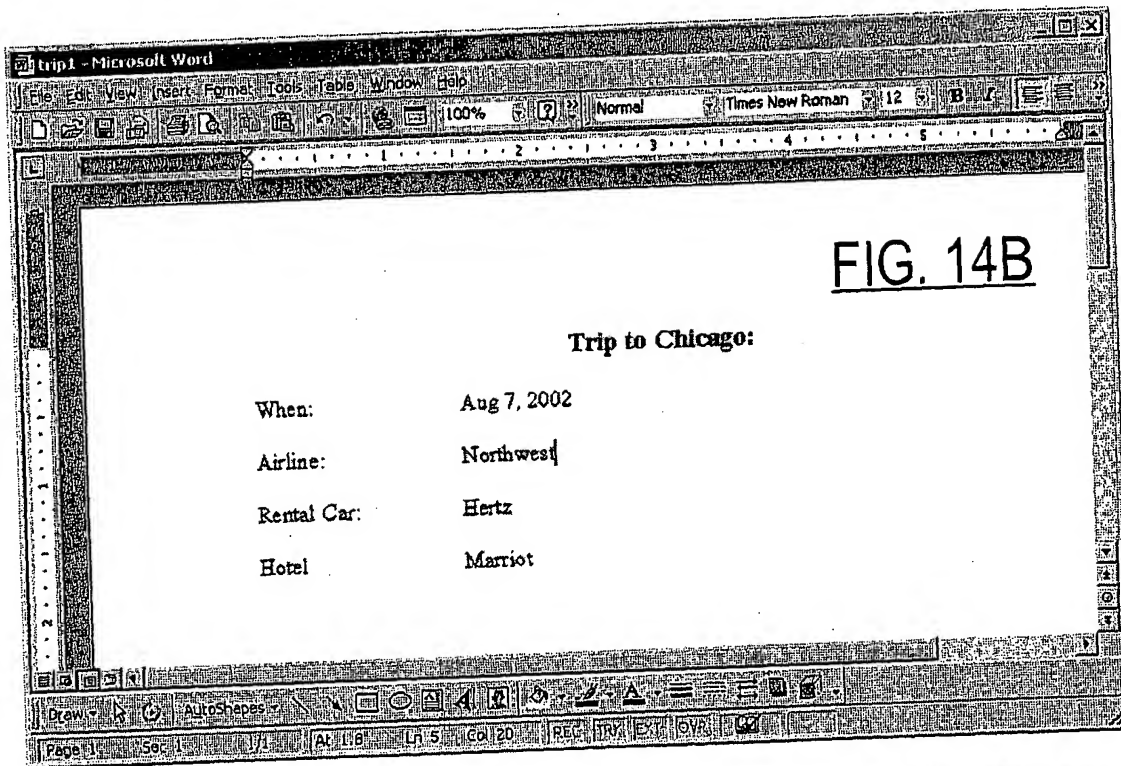
1) Trip 2

nms) new submenu

2) Credit Card

q) quit

Choice:



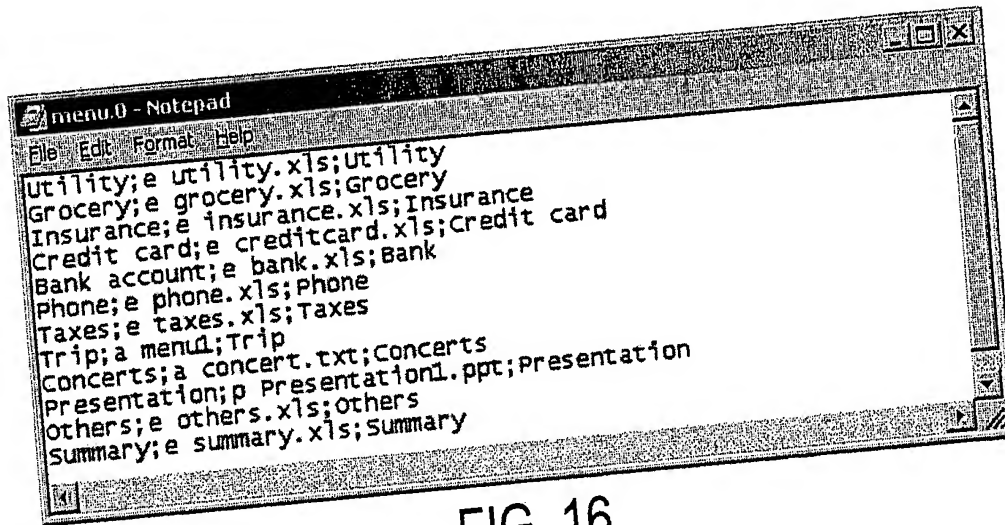


FIG. 16

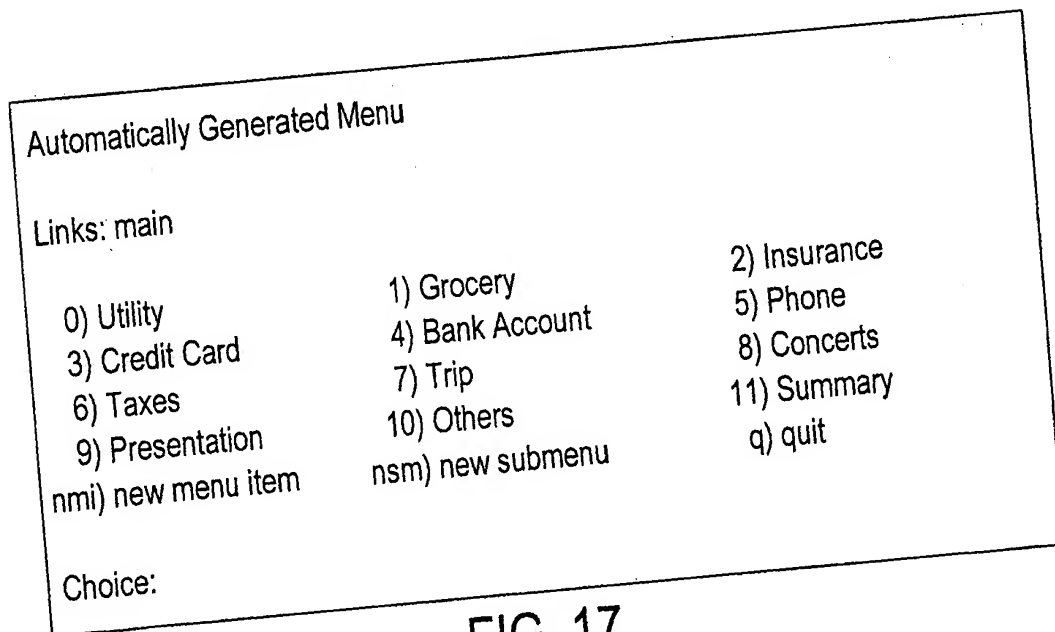


FIG. 17

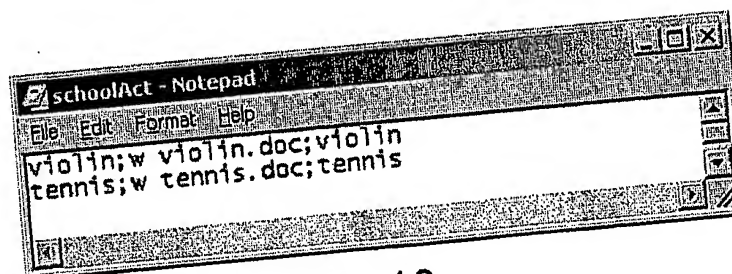


FIG. 18

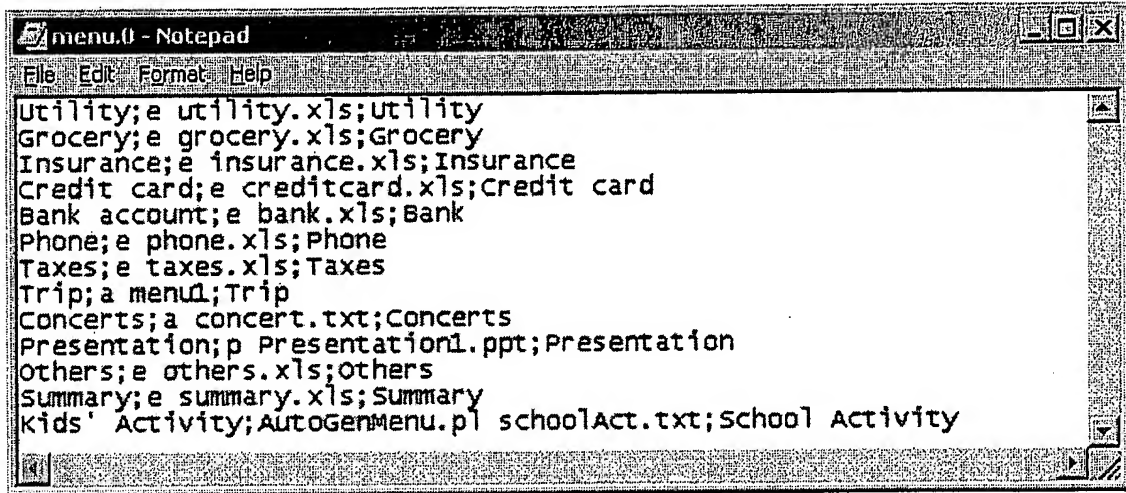


FIG. 19

Automatically Generated Menu

Links: main

0) Utility	1) Grocery	2) Insurance
3) Credit Card	4) Bank Account	5) Phone
6) Taxes	7) Trip	8) Concerts
9) Presentation	10) Others	11) Summary
12) Kids' Activity		
nmi) new menu item	nms) new submenu	q) quit

Choice:

FIG. 20

FIG. 21

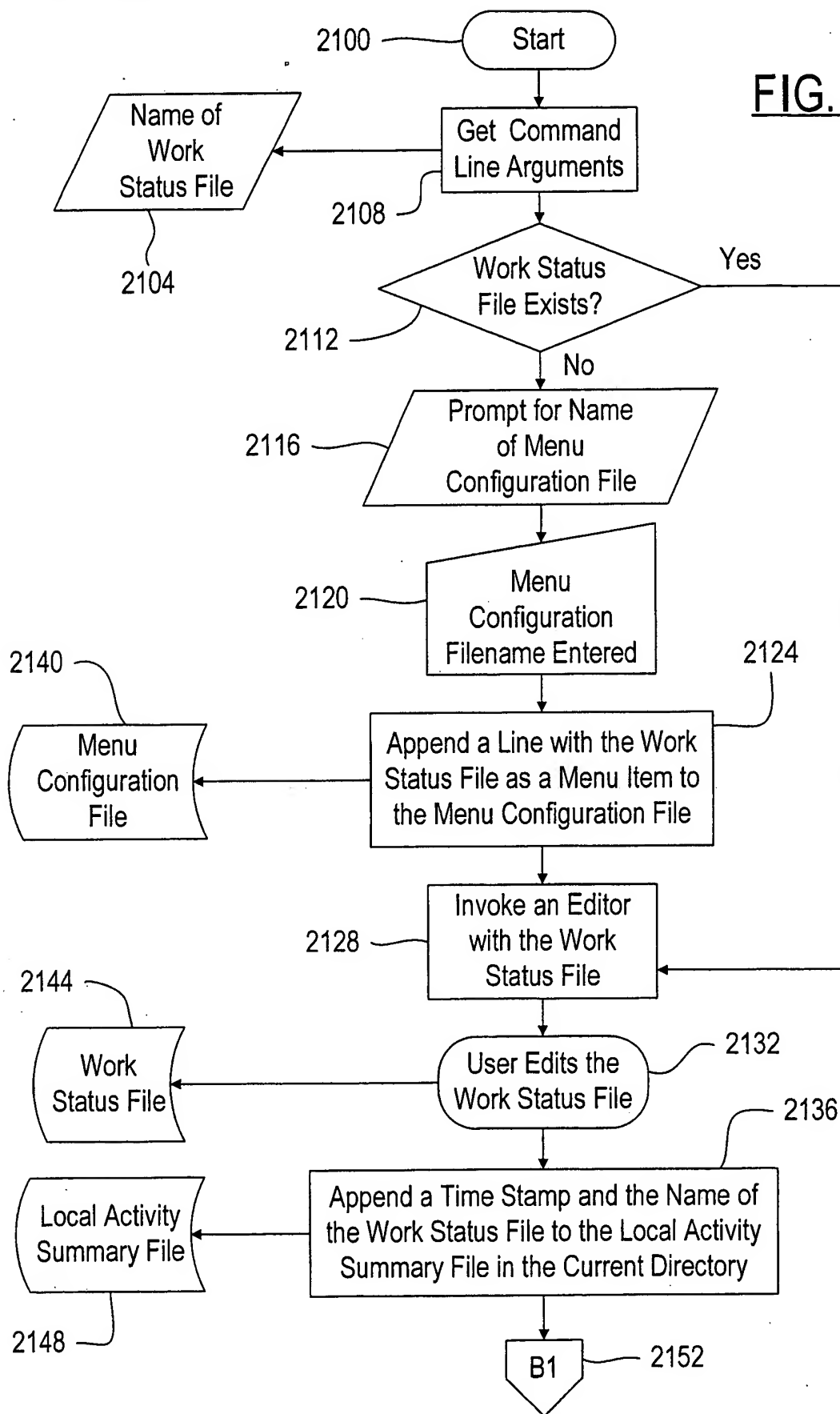
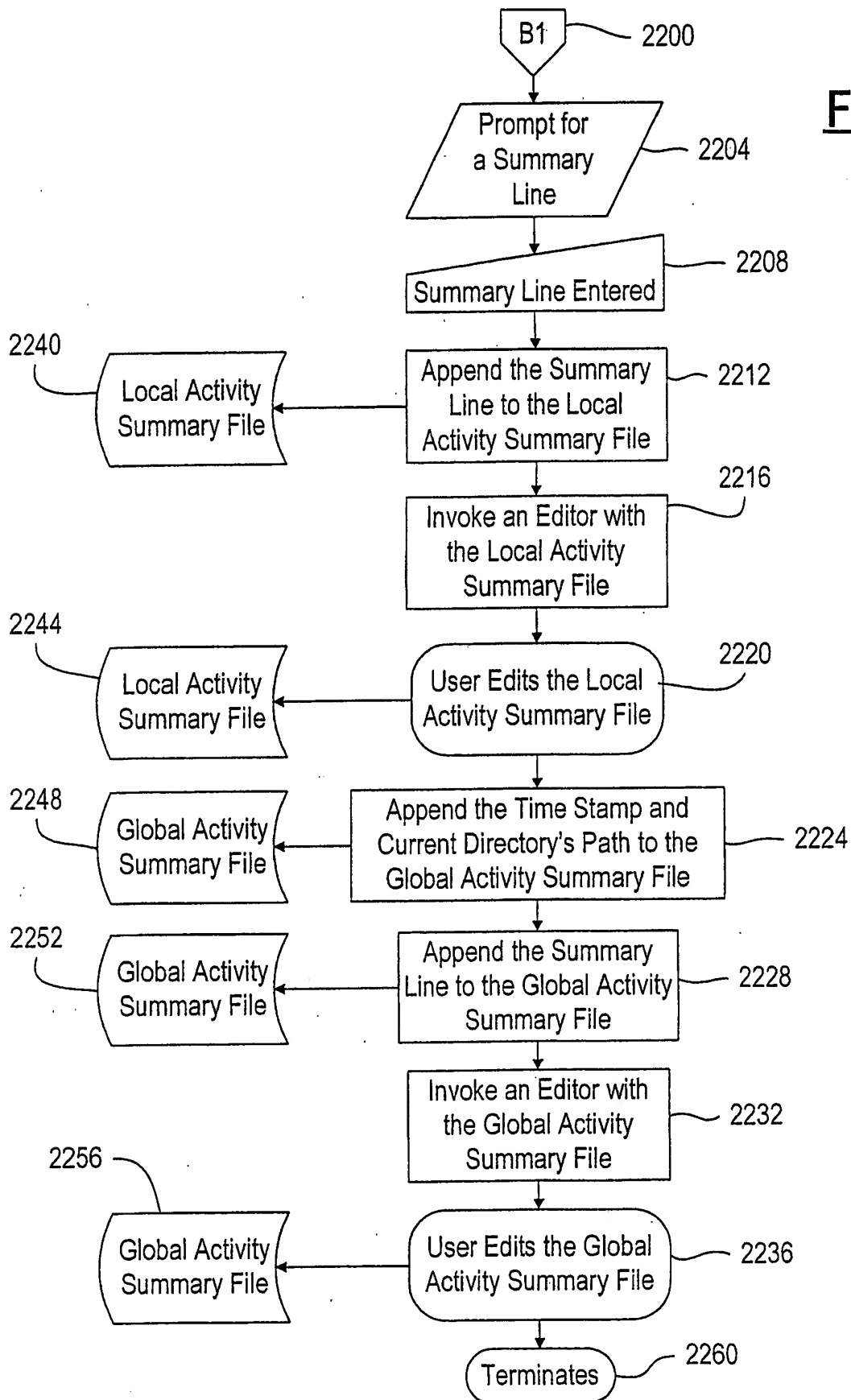


FIG. 22



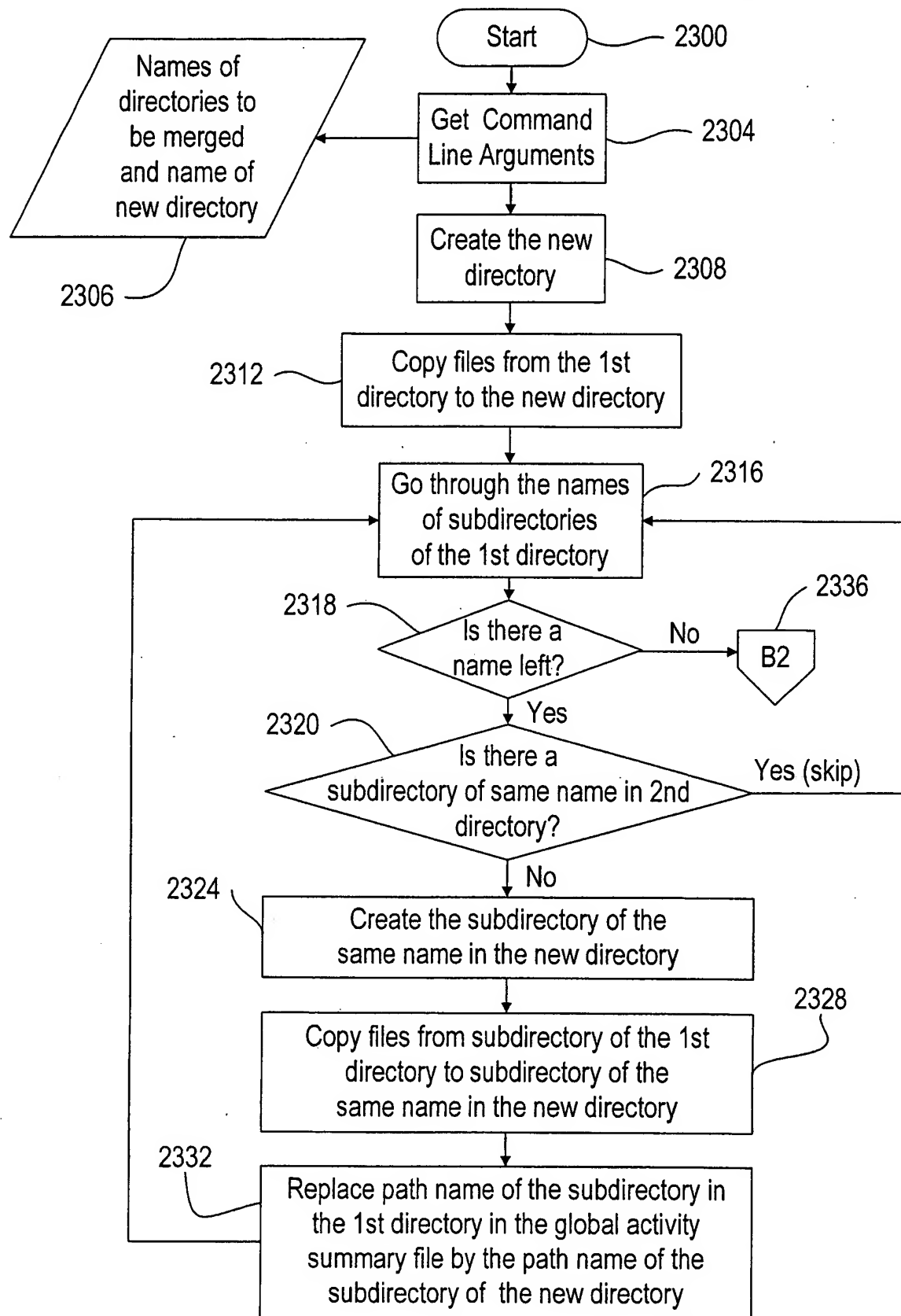


FIG. 23

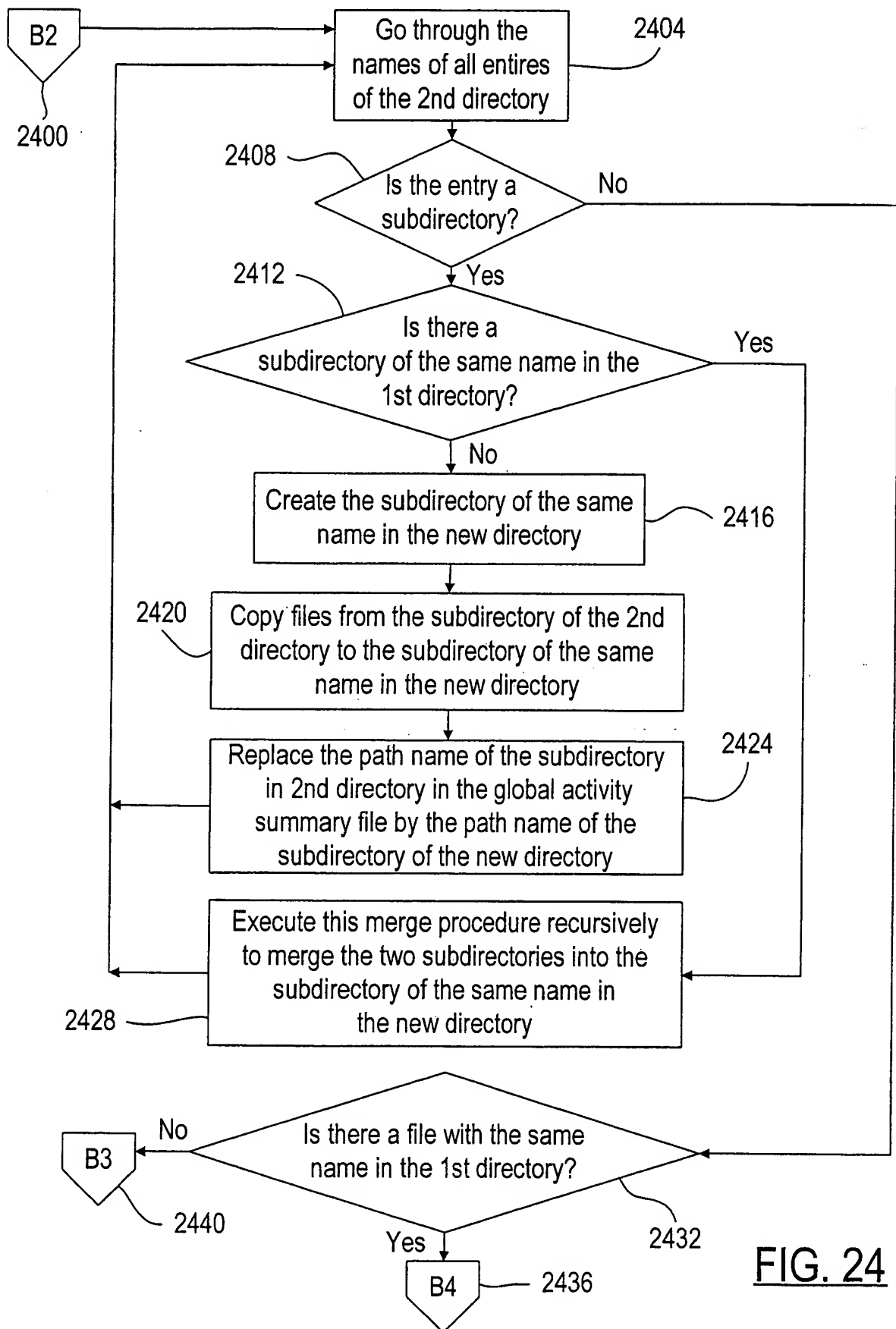


FIG. 24

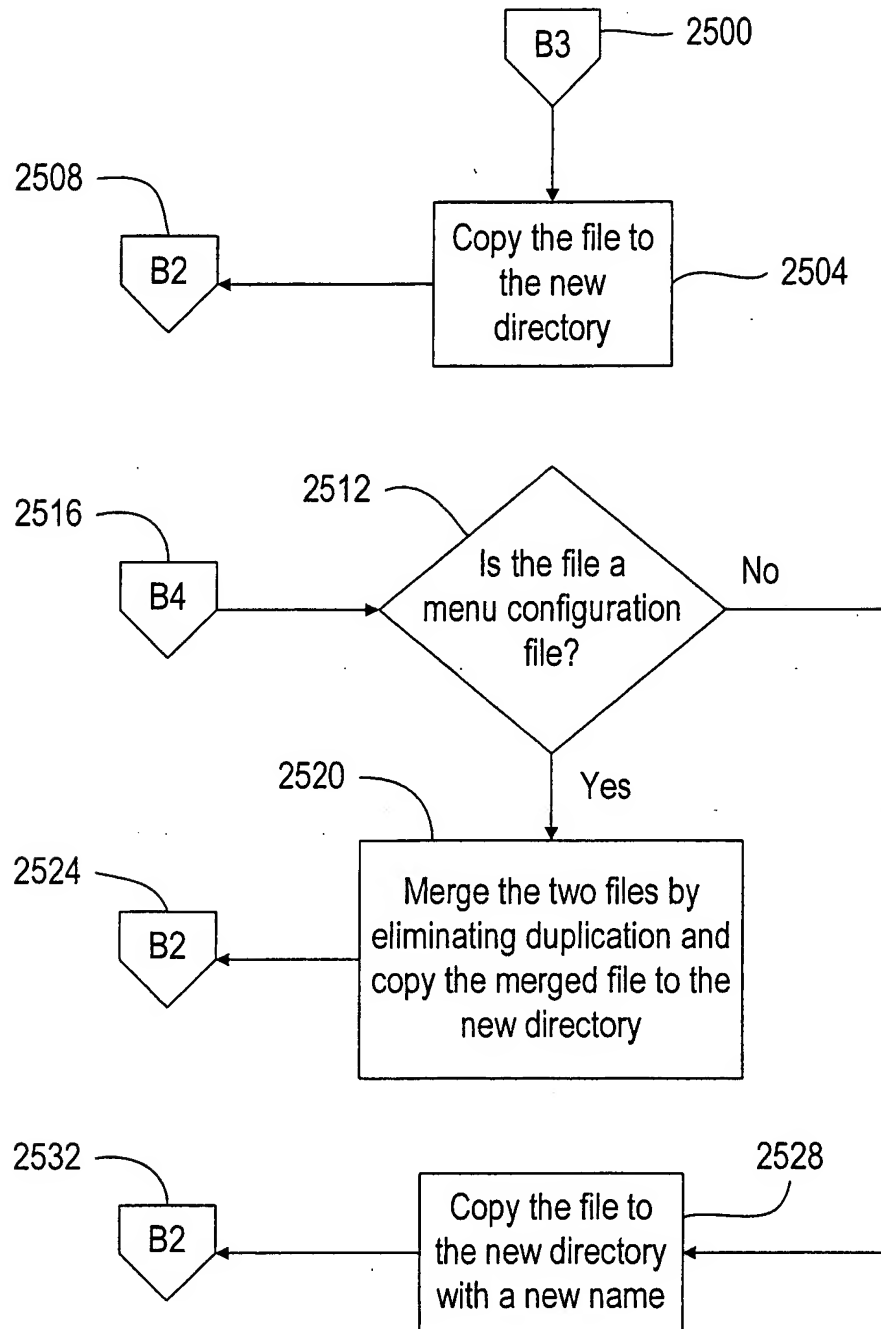


FIG. 25

